

The NICHD Connection

December 2019

INSIDE THIS ISSUE

NICHD Exchange Recap	1
Letter from the Editor	2
Meet Dr. Anshika Jain, Our New Basic Science Postdoc Rep	4
The Rep Report	5
NICHD DIR/DIPHR Year in Review 2019	6
Life Outside Lab	8
Upcoming NIH-Wide OITE Events	9
NIH Library Training and Events	10
December Announcements	11
December Events	14

EDITOR IN CHIEF

Shana R. Spindler, PhD
Shana.Spindler@gmail.com

LAYOUT & DESIGN

Nichole Swan

BACKGROUND PHOTOGRAPHY

See [Credits page](#) online

CONTRIBUTORS

Lindsey Friend, PhD
Anshika Jain, PhD

NICHD Exchange Recap: “What to Expect When You’re Expecting...and Medicating: Medication and Drug Use During Pregnancy”

By Lindsey Friend, PhD

Pregnant and lactating women can be bombarded with advice on what to do during pregnancy. Eat this, but not that. Exercise enough, but not too much. Yet, when it comes to medicine use during pregnancy, sometimes advice is limited. Historically, there have been drugs with unpredicted effects in pregnant women—such as thalidomide, a drug used for morning sickness that caused absent or shortened limbs in thousands of infants. Despite this, a mechanistic understanding of how several types of drugs influence physiology during pregnancy is sparse. On October 10, 2019, science policy analysts, researchers, and physicians gathered for the NICHD Exchange meeting to discuss this issue.

The first speaker was **Dr. Sarah Glavin**, the deputy director of the NICHD Office of Science Policy, Reporting, and Program Analysis. She highlighted the reality that many pregnant women take medications for both chronic and episodic health conditions throughout their pregnancies. According to Dr. Glavin, 97% of women take one or more medications during pregnancy, and over 30% of women take more than five. Despite the large proportion of pregnant women taking medication, the data describing the health benefits or possible dangers on both maternal and fetal health is largely unknown. Often, pregnant women must balance an unknown risk of treatment with an unknown risk of the disease on both themselves and their fetuses.

Dr. Glavin and her colleagues sought to estimate the scope of this issue. They participated in a Health and Human Services (HHS) wide task force that reviewed over 25,000 publications to quantify research, identify gaps, and determine funding sources. They found that many of the studies they catalogued were not primary research articles, rather a large number were reviews of primary data.



(continued on page 3)

Letter from the Editor

The one size fits all label cracks me up. *Really? One size fits all?* I don't think so.

Rarely, if ever, does one size fit all—with anything in life. People have their own predilections, needs, goals, and life situations. To overlook the uniqueness of the individual is to lose sight of what makes us human. This concept is central to the success of clinical research. One example is the need to understand the effects of medication in pregnant women, a population of individuals who are often excluded from clinical trials to evaluate drug safety. The [October NICHD Exchange meeting](#) highlighted this critical gap in science research, recapped by postdoc Dr. Lindsey Friend on [page 1](#).

And while we're in recap mode, don't forget to check out the [NICHD Fellows' 2019 Year in Review](#). Another round of congratulations to all of the noted fellows for their accomplishments throughout the year, and a sincere thank you to the 2019 newsletter contributors.

Before you head off to your holiday parties, we still have plenty of [December announcements](#) and [events](#) for you to look into, and several items of interest in the ["Rep Report"](#) by our new basic sciences Postdoc Rep, [Anshika Jain](#). Have a very happy New Year, and see you in 2020!

Your Editor in Chief,
Shana R. Spindler, PhD

Questions, comments, ideas? Please send an email to our Editor at shana.spindler@nih.gov.

NICHD Exchange Recap

(continued from page 1)

Furthermore, studies on pharmacodynamics (what the drug does to the body) and pharmacokinetics (what the body does to the drug) were specifically lacking. These mechanistic studies are required to determine safety and efficacy of pharmacological therapies. Studies on other pregnancy-specific conditions, such as lactation and placental transport, were similarly deficient. While Dr. Glavin and colleagues set out to identify gaps in the research, they instead found craters.

The discussion then turned to how these sparse studies on maternal and fetal pharmacology are funded. Historically, NICHD has led all other institutes at NIH in investing research funds for grants and personnel in this field. Raising awareness for the large and immediate need for research in this area is an important first step. Ideally the future will bring great strides in understanding pharmacology use surrounding pregnancy in a modern and focused way.

The second speaker was **Dr. Aaron Pawlyk**, the new branch chief of the NICHD Obstetric and Pediatric Pharmacology and Therapeutics Branch, who suggested filling research craters with precision medicine for maternal health. Precision medicine focuses on treating each individual's unique factors and physiology.

The factors that alter our responsiveness to pharmaceuticals can range from our genetic code to the larger environment we live in. A call for a greater focus on precision medicine in pregnant and lactating women is indeed timely. Historically, pregnant and lactating women have been excluded from most clinical trials, despite the fact that they are often prescribed pharmaceuticals for various conditions. Recent efforts applying

precision medicine to pregnancy-related conditions, such as gestational diabetes and preeclampsia, have yielded promising results.

The final speaker was **Dr. Kerry Flannagan**, a postdoctoral fellow in the NICHD Epidemiology Branch in the Division of Intramural Population Health Research (DIPHR). Dr. Flannagan discussed a recent study she conducted investigating the effects of opioid use on fertility. This project included data from over 1,200 women. While other studies focus on abuse or opioid addiction, Dr. Flannagan sought to understand the effects of episodic opioid use (or even a single exposure) in non-addicted women who were trying to conceive. For many women, episodic use may involve opioid use to manage pain from previous lost pregnancies or use of cough syrup for treating cold symptoms.

Dr. Flannagan's study concluded that episodic opioid uses during the preconception time period decreased fecundity and decreased the rates of live births compared to women who were not exposed to opioids. These are the types of primary research studies in pregnant women that are needed, but historically have been limited.

The purpose of the NICHD Exchange series is to bring together members of the institute from diverse backgrounds to facilitate communication and collaboration on significant and current topics. To this end, the Exchange meeting was a success. Dr. Glavin quoted Malala Yousafzai who famously stated: "When the whole world is silent, even one voice becomes powerful." Physicians and researchers working in extramural and intramural NICHD can continue to fill the large craters in our understanding of drug use effects during pregnancy.

Meet Dr. Anshika Jain, Our New Basic Science Postdoc Rep

Our basic science representative is a postdoctoral fellow who serves on the NIH Fellows Committee (FelCom) on behalf of the institute's fellow population. In general, most institutes have one basic science representative and one clinical representative. Representative appointments last for 12 months and can be renewed for an additional year.

Responsibilities of the institute's representative include attending all scheduled FelCom meetings, participating on a subcommittee, disseminating information to the fellows in their institute, communicating fellows' concerns to the committee, and coordinating the distribution of information via subcommittees. In NICHD, our representatives also work closely with the Office of Education to plan events for all NICHD postdoctoral trainees.

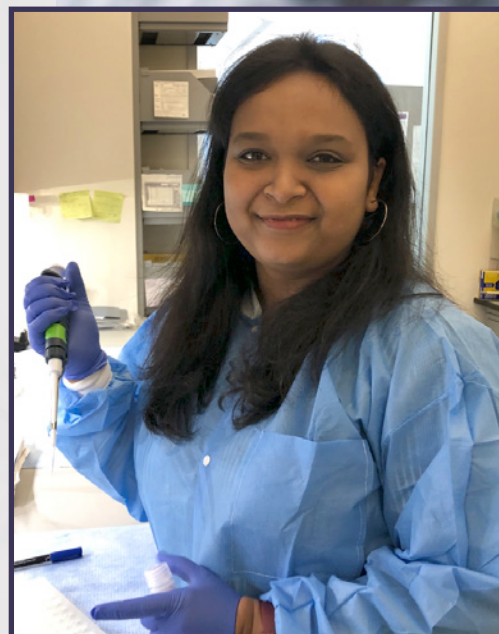
If you would like more information about serving as a basic science or clinical postdoctoral representative, please contact Dr. Erin Walsh (erin.walsh@nih.gov), and for information about serving on a FelCom subcommittee, contact one of the [committee chairs](#) directly.

.....

I am originally from New Delhi, India, where I received my bachelor's degree in biotechnology. I then moved to the United States in 2008 and graduated with my PhD from the University of South Carolina, where I studied metal biology in plants. I currently work with Dr. Tracey Rouault at NICHD, where I am studying the Fe-S cluster biogenesis pathways in humans, with a focus on establishing the mechanism of Fe-S cluster transfer to mitochondrial proteins.

In my spare time, I like to work with my three-year-old daughter making picture collages and doing craft projects. In addition to research, I am passionate about teaching as well as organizing and managing career development events for fellows. I am an active member of the NICHD Fellows Advisory Committee, serving as chair of the 15th annual NICHD Fellows' Retreat. Additionally, I served as the co-chair of the mentoring subcommittee at FelCom from 2018–2019.

I strongly encourage our fellows to join the Fellows Advisory Committee at NICHD as well as FelCom. Both provide great leadership and networking opportunities, as well as an excellent platform to voice your opinions and/or concerns, and to find suitable resources that are available on campus to help you towards your progress and development.



The Rep Report

By Anshika Jain, PhD

Thank you for the warm welcome. As the current NICHD Basic Sciences IC Representative, I represent NICHD postdoctoral fellows at the FelCom meeting every month and share the latest news with you here. Do you have a concern or question that you want brought up at the next meeting? Contact me at anshika.jain@nih.gov!



The new anti-harassment training closed November 15. The committee requested feedback for the facilitators conducting the ethics and anti-harassment training in class. A survey may be sent out to improve the training case studies for 2020.

FelCom elected new co-chairs for the FARE committee: Postdocs Alix Warburton and Leanne Low. There are three open positions that FelCom wants to fill at the next meeting:

- » Childcare board liaison
- » Social committee co-chair
- » Membership secretary

Look out for emails detailing responsibilities for each position and how to apply. This is a great leadership opportunity, and I strongly encourage NICHD fellows to apply for these positions.

Dr. Lori Conlan is looking to organize seminars about financial topics for the upcoming NIH 2020 Career Symposium. A speaker (likely from the NIH Federal Credit Union) will be invited to give tips on topics such as how to save money and budgeting. If you have any suggestions of topics you would like to see covered, please send ideas to Dr. Conlan at conlanlo@mail.nih.gov.

Postdocs Kathy Reding, Pragma Prakash and Nick Madian will be working together to move Fellow_L to an opt-out listserv, which will serve as a bridge to get all the information from FelCom directly to the fellows without having to depend on IC representatives or the various sub-committee members.

Upcoming events to keep an eye out for include:

- » The Visiting Fellows Committee is hosting a brown bag seminar: **November 21, 12-1 p.m.** with Scott Morgan, "Speaking about Science: How to Create a Clear Scientific Presentation," **Bldg 50, Rm 1328/1334 (rear).**
- » The Career Development Subcommittee is hosting a Data Science/Bioinformatics Panel on **November 12 in Bldg 35, Rm 610, starting at 3 p.m.** Panelists include Dr. Ioannis Kagiampakis, AstraZeneca, Scientist; Dr. Chris Barbour, Atrium, Data Scientist; and Dr. Celine Hong, NIH, Staff Scientist.

NICHD DIR/DIPHR Year in Review 2019

A look back at Intramural NICHD fellow accomplishments during 2019

The NICHD Division of Intramural Research (DIR) and Division of Intramural Population Health Research (DIPHR), with the help of the **Retreat Steering Committee**, held the Fifteenth Annual Meeting of Postdoctoral, Clinical, and Visiting Fellows and Graduate Students at the William F. Bolger Center in Potomac, Maryland on May 31, 2019. The day began with a thought-provoking perspective on modern science and mentorship by NICHD Scientific Director Dr. Constantine A. Stratakis, followed by a fascinating keynote presentation on the benefits of dog genetics by Dr. Elaine Ostrander, NIH Distinguished Investigator and Chief of the Cancer Genetics and Comparative Genomics Branch in the National Human Genome Research Institute (NHGRI). Check out the full recap [here](#)!

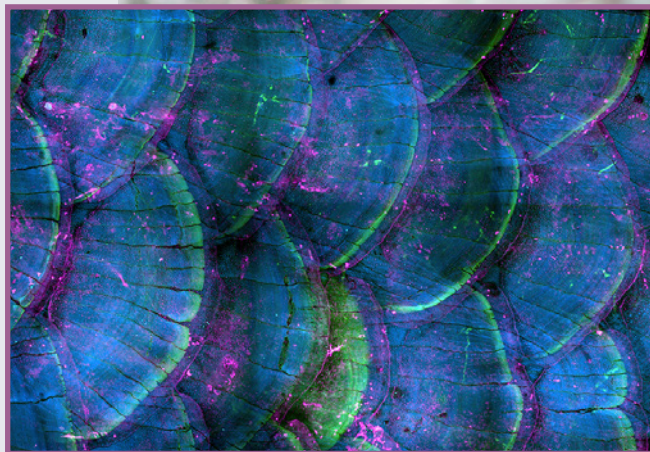
Dr. Mengying Li, postdoctoral fellow in the Epidemiology Branch, DIPHR, won second place in the 2019 Three-minute-Talk (TmT) Competition, which included fellows from the NICHD, NHGRI, NIDCR, NIAMS, NEI and NCATS.

Dan Castranova, an aquatic research specialist in the Weinstein Lab, won the first place award in the 2019 NICHD DIR-DIPHR Scientific Retreat Image Competition with his image of adult fish scales (*top image at right*). And **Leana Ramos**, a postbac fellow in the Le Pichon Lab, won the second place award for her image of sensory neurons from the right leg of a mouse projecting to the spinal cord (*bottom image at right*).

Dr. María Queralto-Martín, nominated by postbac William Rosencrans, received the NICHD Fellow Mentor of the Year Award.

Dr. Alan Hinnebusch, nominated by postdoc Dr. Suna Gulay, received the NICHD Investigator Mentor of the Year Award.

(continued on page 7)



NICHD DIR/DIPHR Year in Review 2019

(continued from page 6)

Twenty-four NICHD fellows received the 2020 Fellows Award for Research Excellence (FARE Awards) at the 2019 Annual NIH Research Festival (complete list [here](#)).

During the 2019 Postbac Poster Day, a total of 18 NICHD postbacs received an Outstanding Poster Award for scoring within the top 20-percent of all posters, NIH-wide. See a complete list [here](#). In addition, a panel of NICHD postdocs and graduate students selected the postbac poster presentations from our institute that scored within the top 25-percent of all NICHD posters, with winners found in the June 2019 issue [announcements](#).

NICHD postbacs were accepted into 17 professional schools for MD, PhD, or MD/PhD programs, including: George Washington University; University of Iowa Carver College of Medicine; University of South Florida Morsani School of Medicine; Kansas City University; NIH-Johns Hopkins Graduate Partnership Program; University of Arizona; University of Michigan; Duke University; Thomas Jefferson University; Emory University; Stanford University; Mount Sinai Icahn School of Medicine; Northeastern University; Columbia University Teachers College; University of Massachusetts; University of Miami; Virginia Commonwealth University.

A BIG THANK YOU TO ALL OF OUR 2019 NEWSLETTER CONTRIBUTORS:

Elizabeth Baden, Jillian Belgrad, Sydella Blatch, Katherine Bonnington, Allyson Byrd, Carol Carnahan, Li Chen, Sam Choudhury, Nicole Ellis, Ariel Eraso, Rose Freel, Charly Guardia, Suna Gulay, Monica Gupta, Linda Huynh, Anshika Jain, Sara King, Amy Kullas, Feng Li, Amrita Mandal, Thomas Miller, Kate Monzo, Yvette Pittman, Megha Rajendran, Leana Ramos, Sonia Robinson, Kely Sheldon, Patricia Silveyra, Carissa Stover, Nichole Swan, Dennis Twombly, Christa Ventresca, Erin Walsh, Katie Wendover, Zelia Worman

Please submit your accomplishments for publication in the newsletter throughout the year to Shana.Spindler@gmail.com.



NIH

Eunice Kennedy Shriver National Institute of Child Health and Human Development

ABOVE: Dr. Erin Walsh, associate director of the NICHD Office of Education, works the NICHD booth at ABRCMS 2019



Life Outside Lab

ANAHEIM, CALIFORNIA | NOVEMBER 13-16, 2019

NICHD Office of Education visits the Annual Biomedical Research Conference for Minority Students (ABRCMS)

PHOTOS COURTESY OF ERIN WALSH



Upcoming NIH-Wide Office of Intramural Training and Education (OITE) Events

For more information and registration, please visit [Upcoming OITE Events](#).

- Dec 3 [Assertiveness for Scientists: How to Ask for What You Need in the Lab and in Life](#)
[OITE Orientation for Graduate Students and Postdoctoral Fellows](#)
- Dec 9 [Networking for Your Career](#)
- Dec 10 [Academic Job Interviews](#)
- Dec 12 [Postbac Seminar Series](#)
- Dec 13 [Workplace Dynamics V: Diversity in a Multicultural Society](#)
- Dec 17 [OITE Holiday Party for Trainees](#)

DISCUSSION FOR BUILDING RESILIENCE

- Dec 6 [Navigating Life & NIH While Dealing with Emotional or Psychological Challenges](#)
[Testing & Application Stress](#)
[Difficult Relationships & Interpersonal Conflict](#)
- Dec 19 [LGBTQI+ Trainees](#)
[Self-compassion for Trainees](#)



NIH Library Training and Events

NIH Library Training Classes Now Available for Registration

In-person classes are held in the NIH Library Training Rooms, Clinical Center, Bldg 10, and webinars are held online. For more information:

- » <https://www.nihlibrary.nih.gov/training/calendar>
- » 301-496-1080
- » nihlibrary@nih.gov

- Dec 2 [Introduction to Camtasia](#) (online)
- Dec 3 [Biosketch: Telling Your Research Stories](#) (online)
 [Introduction to EndNote Online](#) (online)
- Dec 4 [NIH Library Resources for NIH Staff](#) (online)
- Dec 5 [Introduction to PubMed](#) (in-person & online)
- Dec 10 [BTRIS Basics for Clinical Researchers](#) (in-person)
 [SciFinder Structure and Reaction Searching](#) (in-person & online)
- Dec 12 [Ingenuity Pathway Analysis \(IPA\)](#) (in-person)
- Dec 17 [Searching Smarter: Keeping Current in the Literature](#) (online)
- Dec 19 [Introduction to Web of Science](#) (online)
- Dec 23 [Introduction to EndNote Desktop](#) (online)

December Announcements

CALLING ALL FELLOWS OF NICHD—IT'S IMAGE COMPETITION TIME!

We are beginning our search for the feature image of the 16th Annual NICHD Fellows Meeting.

The winning image, chosen by the Fellows Advisory Committee, will be showcased on the retreat website, on posters, and used as the front cover of the event program. Also, to highlight everyone's imagery, all submissions we receive will be used to produce a collage posted on the 2020 retreat website. You can always take a look at the image submissions from previous years at <http://retreat.nichd.nih.gov>.

In addition to image resolution and quality, selection criteria include the relevance to our institute's mission and artistic view of the image. All submissions (at the highest possible resolution) should be sent to Nicki Swan (jonasnic@mail.nih.gov) by **January 31, 2020 with a brief caption for the image.**

INTERESTED IN TAKING AN FAES COURSE FOR YOUR PROFESSIONAL DEVELOPMENT?

The Office of Education will sponsor several NICHD fellows and graduate students to enroll in one of the following FAES courses for the spring 2020 semester. Course information can be found in the FAES 2019-2020 [course catalog](#).

- » Regulatory Affairs and FDA Regulation
- » GRE Review (Online)
- » Healthcare Management
- » Introduction to Technology Transfer
- » MCAT Review and Test Preparation

If you are interested, please contact Ms. Carol Carnahan (carnahac@mail.nih.gov) **at least four weeks before class begins.**

It is important that you discuss this with your mentor and he/she is supportive of your participation.

(continued on page 12)

December Announcements

(continued from page 11)

16TH ANNUAL NIH GRADUATE STUDENT RESEARCH SYMPOSIUM — OUTSTANDING MENTOR AWARD NOMINATION

From the NIH Office of Intramural Research and Education

Every year, the symposium recognizes three outstanding mentors for his/her leadership and dedication to his/her graduate students. To nominate your mentor, please write a brief nomination letter (1–2 pages) describing why your mentor should receive the Graduate Partnerships Program Outstanding Mentor Award. **Nominations are due December 2, 2019 at 5 p.m.!**

You may wish to consider how your mentor has played a role in the following areas:

- » Your ability to conduct science (critical evaluation skills, experimental design, etc.)
- » Your ability to communicate scientifically (written and oral)
- » Networking
- » Career development
- » Leadership/mentorship in the lab
- » Scientific responsibility

Nominate your mentor at: <https://www.training.nih.gov/gsc/symposium/16th/mentors>.

AAAS MASS MEDIA SCIENCE & ENGINEERING SUMMER FELLOWSHIP

Applications open October 1–January 1!

From the AAAS Mass Media Fellowship [website](#):

“This highly competitive program strengthens the connections between scientists and journalists by placing advanced undergraduate, graduate, and post-graduate level scientists, engineers, and mathematicians at media organizations nationwide. Fellows work as journalists at media organizations such as National Public Radio, *Los Angeles Times*, WIRED, *Milwaukee Journal Sentinel*, and NOVA...

...For 10 weeks during the summer, the AAAS Mass Media Science & Engineering Fellows collaborate with media professionals at radio and television stations, newspapers, and magazines. As part of their job, the scientists and their journalist-hosts strive to make science news easy for the public to understand.”

For additional information about the program visit aaas.org/programs/mass-media-fellowship.

(continued on page 13)

December Announcements

(continued from page 12)

NICHD FELLOWS ADVISORY COMMITTEE: SEEKING NEW MEMBERS!

The Office of Education formed an advisory committee in 2016, and we are seeking several more dedicated members to help us develop and initiate academic support programs for the institute. Both domestic and visiting fellows are needed. We want to achieve a broad representation, culturally and academically, so we can address the needs of all our trainees at NICHD. The committee meets monthly to exchange ideas and informally discuss ways we can enhance and tailor the training experience within the NICHD intramural program.

Some potential topics for our committee are how to:

- » Increase the participation for training activities
- » Expose fellows to various careers in science
- » Identify teaching opportunities and internal and external research funding mechanisms
- » Establish a structure for sharing scientific and career resources within the institute

The advisory committee will also steer the 16th Annual NICHD Fellows' Retreat, to be held in Spring 2020.

This includes developing the agenda/program, inviting speakers, reviewing abstracts, selecting fellow/student presenters, and moderating some of the sessions—it's a great service opportunity, plus you'll get to be part of the team that plans our biggest annual event for fellows!

Don't miss this opportunity to serve your intramural NICHD community.

The committee meets once a month on Thursdays, from 3 to 4 p.m.

Please contact Dr. Erin Walsh at erin.walsh@nih.gov if you are interested in joining the group.



December Events

THURSDAY, DECEMBER 12, 10 AM – NOON

Job Interviewing

Public Speaking Coach Scott Morgan

If you are actively looking for a job this year, we strongly recommend you attend this informative and dynamic workshop. Scott Morgan aims to increase your comfort level, enhance your confidence, and most importantly, prepare you for the interview process. Together, you will analyze expected questions, themes, dilemmas, and your demeanor through interactive exercises and peer review.

To register, please contact Dr. Erin Walsh at erin.walsh@nih.gov.

MONDAY, DECEMBER 16, NOON – 1 PM

Annual Postbac Course

Life as a Primary Care Physician

April Walker, MD

This workshop is part of the 8-week course available for all NICHD postbacs. Pre-registration was required. For more information on upcoming opportunities, please contact Dr. Erin Walsh at erin.walsh@nih.gov.